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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/507,437

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Juha Maijala

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07/03/2007

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EXAMINER

PARKER, FREDERICK JOHN

ART UNIT

PAPER NUMBER

1762

MAIL DATE

DELIVERY MODE

07/03/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/507,437

Applicant(s)

MAIJALA ET AL.

Examiner

Frederick J. Parker

Art Unit

1762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 21-37 is/are pending in the application.
- 4a) Of the above claim(s) 22, 34 and 35 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 21, 23-33, 36 and 37 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 4-30-07.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

Specification

1. The amendments in response to the Objections related to the Specification of the Previous Office Action are acknowledged and appreciated, and the Examiner withdraws the objections.

Claim Rejections - 35 USC § 112

2. The amendments in response to the 35 USC 112 rejections of the Previous Office Action are acknowledged and appreciated, and the Examiner withdraws the rejections. The new rejections are necessitated by amendments.

3. Claim 21 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Claim 21; a feeding nozzle located between "precharging electrodes" is New Matter because there is no mention in the specification of precharging electrodes in such a position, the electrodes 2 in the figure being on either side of the applicator but therefore one simply cannot be a precharging electrode since the web and particles would have already been precharged when they reach the second electrode. Further [0051-62] which describes the electrodes fails to support such an arrangement.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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5. Claims 21,36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 21 is vague and indefinite because it appears one precharging electrode cannot precharge anything since it is located after the coating applicator.

- Claim 36 is vague and indefinite because on line 12, it is unclear what is meant by "strengthen(ing) the performance of the electrode" since it is unstated what "performance" is intended.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

7. Claims 36,37 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1,3 of U.S. Patent No. 7186445. Although the

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conflicting claims are not identical, they are not patentably distinct from each other because instant claim 36 is generic to claim 1 of '445, the differences being simply that US'445 does not specify the charge of the electrodes as negative which instant claim 36 does (the choice must be either – or +, as would be readily known to one skilled in the art), and US445 describes what would be a row of electrodes with the nozzle without using said term, which is merely semantics. Hence the instant claim 36 is an obvious variant of claim 1 of 'US445; instant claim 37, and 3 of US445, are the same.

8. The rejections of the previous Office action are withdrawn and replaced with those which follow as necessitated by amendment.

Claim Rejections - 35 USC § 103

9. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

10. Claims 21,22,24-27-33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reilly US 3680779 in view of Williams et al US 3549403.

Reilly teaches to electrostatically spray powder coatings onto sheet substrates using (fig.2) a powder sprayer formed by rotating meter roller which is an electrode 12 surrounded by wipers 22,23 to dispense charged powder, and in a linear row parallel to the travel of the sheet substrates are additional electrodes 26,27 which cause powder acceleration towards the substrate to form a uniform powder (= granular) coating. The powder is discharged by an opening and fed to the substrate, which meets the conventional meaning of a feeding nozzle. Powders of 15-80 microns

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are cited per claim 21, without limitation as to composition. It is the Examiner's position that it would have been apparent to use any composition capable of being charged in this or any electrostatic sprayer given the knowledge of the process to one of ordinary skill. Corona electrodes 26,27 are on either side of the nozzle so 27 is not a precharging electrode per se, but since the Applicants' device uses the identical arrangement of electrodes (see figure , elements 2), the reference meets the "pre-charging electrodes" limitation. The movement of the powders within reservoir 11 necessarily causes powder charging by frictional/ tribo interaction to at least a minimal extent, albeit unintentional; it therefore meets the limitation of claims 32-33. Element 35 is a backing electrode beneath the substrate and in opposition to the row of electrodes. Finishing the coating with a heated calender is not cited.

Williams teaches to electrostatically apply charged resin particles to a continuous paper sheet (per claim 24) using an electrostatic field to form a powder coating on the paper surface. The powder coated paper is then heated and driven through a nip between two heated rollers 34,36 ("calendaring" per specification page 14, 11-13) to provide a uniformly thick, adherent coating on the paper. The coating device includes hopper 18 which feeds dry resin particles past corona electrode 24 to create the electrostatic field to convey and distribute it evenly onto sheet 10, prior to heat treatment. The speed of the paper ranges from a few ft/min to several thousand ft/min, given the guidance of col. 4, 36-43. Thus the web speed range of claim 25 represents optimization, the range being encompassed or at least overlapped by that of Williams. Powder particle size is not limited, but can be as small as 10 microns or less (col.5, 3-14), also per claim 21. Powder compositions are not required to contain any inorganic components, nor do those of Table I contain them; thus no inorganics of the reference meets the limitation of "less than 40 %

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inorganic additives” of claim 21. Examples cite resin coverage of 6 pds/100 cu. Ft which calculates to approximately 28 gm/ sq. m., with EX. 1 citing a somewhat higher range, but which is also within the range of claim 25. The subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made if the overlapping portion of the ranges disclosed by the reference were selected because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Wortheim* 191 USPQ 90.

In both references the powder is transported through / via air or other gas to the substrate per claim 30. Per claims 28-29, while coating a second face of the sheet substrate is not cited, doing so using the same method to produce the desired coating on the first side would have been an obvious variation to produce a dual-sided coating.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the method of Reilly by incorporating the post-treating of the granular layer using heated calender rolls as disclosed by Williams to provide coatings on sheet substrates which are uniformly thick and adherent.

11. Claims 36-37 patentably distinguish over the prior art if the rejections under 25 USC 112 and Double Patenting can be overcome, pending an update search.

Response to Arguments

Applicants arguments have been considered. The amendments render moot the previous rejections and therefore response to the arguments is equally moot. The new rejections above take into consideration amendments and arguments cited.

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12. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a).

Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

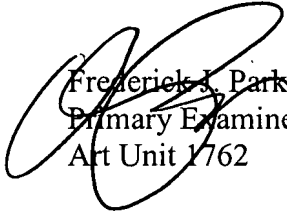
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frederick J. Parker whose telephone number is 571/ 272-1426. The examiner can normally be reached on Mon-Thur. 6:15am -3:45pm, and alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Meeks can be reached on 571/272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Fredericks J. Parker
Primary Examiner
Art Unit 1762

fjp